## Coaxial Amplifier

**ZFL-1000+**

**ZFL-1000**

**CASE STYLE: Y460**

### 50Ω Low Power 0.1 to 1000 MHz

**Features**
- wideband, 0.1 to 1000 MHz
- rugged, shielded case
- protected by US Patent, 6,943,629

**Applications**
- VHF/UHF
- cellular
- instrumentation
- lab use

### Amplifier Electrical Specifications

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>FREQUENCY (MHz)</th>
<th>GAIN (dB)</th>
<th>MAXIMUM POWER (dBm)</th>
<th>DYNAMIC RANGE</th>
<th>VSWR (:1) Typ.</th>
<th>DC POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZFL-1000+</td>
<td>0.1 1000</td>
<td>17 ±0.7</td>
<td>+9* +5</td>
<td>6.0 +18</td>
<td>1.5 2.1*</td>
<td>15 105</td>
</tr>
</tbody>
</table>

* Output VSWR 2.8:1 maximum over 750-1000 MHz, 1 dB compression +7dBm at 500-1000 MHz
Open load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB

### Maximum Ratings

- **Operating Temperature**: -20°C to 71°C
- **Storage Temperature**: -55°C to 100°C
- **DC Voltage**: +17V Max.

*Permanent damage may occur if any of these limits are exceeded.*

### Outline Drawing

#### STANDARD

```
A B C D E F G H J K L M N P Q R S T
```

#### OPTION "B"

```
K M L J I H G F E D C B A
```

### Outline Dimensions (in"")

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25</td>
<td>1.25</td>
<td>.75</td>
<td>.63</td>
<td>.36</td>
<td>1.000</td>
<td>1.000</td>
<td>.125</td>
<td>.125</td>
<td>.46</td>
<td>2.18</td>
<td>1.688</td>
<td>.06</td>
<td>.750</td>
<td>.50</td>
<td>.80</td>
<td>.45</td>
<td>.29</td>
<td>grams</td>
</tr>
<tr>
<td>31.75</td>
<td>31.75</td>
<td>19.05</td>
<td>16.00</td>
<td>9.14</td>
<td>25.40</td>
<td>25.40</td>
<td>3.18</td>
<td>3.18</td>
<td>11.68</td>
<td>55.37</td>
<td>42.88</td>
<td>1.52</td>
<td>19.05</td>
<td>12.70</td>
<td>20.32</td>
<td>11.43</td>
<td>7.37</td>
<td>38</td>
</tr>
</tbody>
</table>

### Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits’s applicable established test criteria and measurement instructions.
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**Connections**

<table>
<thead>
<tr>
<th>Connectors</th>
<th>Model</th>
<th>Price</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA</td>
<td>ZFL-1000+</td>
<td>$79.95</td>
<td>(1-9)</td>
</tr>
<tr>
<td>BRACKET (OPTION &quot;B&quot;)</td>
<td>$5.00</td>
<td>(1+)</td>
<td></td>
</tr>
</tbody>
</table>
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### Typical Performance Data/Curves

<table>
<thead>
<tr>
<th>FREQUENCY (MHz)</th>
<th>GAIN (dB)</th>
<th>DIRECTIVITY (dB)</th>
<th>VSWR (1:1) 16V</th>
<th>NOISE FIGURE (dB)</th>
<th>POUT at 1 dB COMPR. (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZFL-1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12V</td>
<td>16.64</td>
<td>23.15</td>
<td>1.05</td>
<td>6.4</td>
<td>7.8</td>
</tr>
<tr>
<td>15V</td>
<td>16.72</td>
<td>23.20</td>
<td>1.06</td>
<td>6.4</td>
<td>7.8</td>
</tr>
<tr>
<td>16V</td>
<td>16.78</td>
<td>23.25</td>
<td>1.06</td>
<td>6.4</td>
<td>7.8</td>
</tr>
</tbody>
</table>

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### ZFL-1000+ and ZFL-1000 Performance Data

- **Gain (dB)**
  - 12V: 16.64
  - 15V: 16.72
  - 16V: 16.78

- **Directivity (dB)**
  - 12V: 23.15
  - 15V: 23.20
  - 16V: 23.25

- **VSWR (1:1)**
  - 12V: 1.05
  - 15V: 1.06
  - 16V: 1.06

- **Noise Figure (dB)**
  - 12V: 6.4
  - 15V: 6.4
  - 16V: 6.4

- **Output Power at 1 dB Compression (dBm)**
  - 12V: 7.8
  - 15V: 7.8
  - 16V: 7.8

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